MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Oxygen Generator, Chemical**
Emergency Escape Breathing Device
(EEBD / SCRAM / PBE)

Revision: 1 September, 2004

Product Part Number:		
	Generators	802400 - 02, 03
	Generator / Scrubber / Hood Assemblies	802300 - 01, 02, 04, 05, 11, 12, 14, 14-Spec, 15, 16

AVOX SYSTEMS INC.
225 Erie Street
Lancaster, NY 14086
Telephone 716-683-5100

CHEMTREC Emergency Telephone Numbers:

United States: 800-424-9300
International: 703-527-3887 (collect)

SECTION 2 - INFORMATION ON INGREDIENTS

GENERATOR	CAS #	WGT. %	EXPOSURE LIMITS
Sodium Chlorate	7775-09-9	less than 90	’01 none (oxidizer)
Barium Peroxide	1304-29-6	less than 7	’02 ACGIH TLV 0.5mg/m3 ’02 OSHA, PEL 0.5 mg/m3
Potassium Perchlorate	7778-74-7	less than 2	’01 none (oxidizer)
Iron Powder	7439-89-6	less than 7	’01 none, see iron oxide
Silicon Dioxide	14808-60-7	less than 5	’02 ACGIH TLV 3mg/m3 ‘02 OSHA, PEL 5 mg/m3
Titanium Dioxide	13463-67-7	less than 3	’02 ACGIH TLV 10mg/m3 total TWA 5 mg/m3 respirable dust ’02 OSHA, PEL 15 mg/m3 5 mg/m3 respirable dust
Mica	12001-26-2	less than 2	’02 ACGIH TLV 3 mg/m3 total TWA ’02 OSHA, PEL 20 mppcf
Magnesium Oxide	1309-48-4	less than 0.2	’01 OSHA, PEL 5 mg/m3 respirable dust 15 mg/m3 dust ’01 ACGIH TLV 10 mg/m3 fume
Talc	14807-96-6	less than 0.2	’02 ACGIH TLV 2 mg/m3 total TWA ’02 OSHA, PEL 20 mppcf
Iron Oxide	1309-37-1	less than 0.1	’02 ACGIH TLV 5 mg/m3 fume as Fe ’02 OSHA, PEL 20 mppcf

SECTION 2 - INFORMATION ON INGREDIENTS (CONTINUED)

SCRUBBER	CAS #	WGT. %	EXPOSURE LIMITS
Lithium Hydroxide	1310-65-2	-	‘01 OSHA, 2 mg/m3 (caustic material)
Molecular Sieve (see below)	-		
silicon dioxide	7631-86-9	less than 60	’02 ACGIH TLV 3 mg/m3 ’02 OSHA, PEL 5mg/m3
aluminum oxide (nonfiber)	1344-28-1	less than 40	’02 ACGIH TLV 10 mg/m3 ’02 OSHA, PEL 15mg/m3, dust 5 mg/m3 respirable dust
sodium oxide	1313-59-3	less than 20	None
Magnesium Oxide	1309-48-4	less than 5	’01 ACGIH TLV 10 mg/m3 ’01 OSHA, PEL 15 mg/m3 total dust ’01 OSHA, PEL 5 mg/m3 respirable dust

Listed as IARC Carcinogen: silicon dioxide
Listed as NTP Carcinogen: silicon dioxide, talc, quartz
OSHA Carcinogen: none

SECTION 3 - HAZARD IDENTIFICATION

Eye Contact: Can burn.

Skin Contact: Can be irritating to skin. May cause rash.

Ingestion: Both barium and sodium chlorate are toxic if ingested. Reported lethal doses of sodium chlorate are 2 grams for children and 15 - 30 grams for adults.

Inhalation: Dust from the chemical core and/or scrubber may cause irritation to the mucous membranes, throat and nose.

SECTION 4 - FIRST AID MEASURES

Eye Contact: Flush eyes with a directed stream of water for at least 15 minutes. Forcibly hold eyelids apart to ensure complete irrigation of all eye and lid tissue. Get medical attention if irritation occurs.

Skin Contact: Wash affected area with soap and water. Get medical attention if irritation occurs.

Inhalation: Avoid breathing excessive dust. Remove to fresh air at once.

Ingestion: Contact physician immediately.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: not applicable

Flash Point Method: not applicable

Flammable Limits: not applicable

Autoignition Temperature: not applicable

Unusual Fire & Explosion Hazards: Oxidizers generate their own oxygen as they burn and therefore cannot be extinguished by means other than water. Do not use CO2 or dry extinguishers as they are ineffective and may create a worse situation.

Special Firefighting Procedures: Avoid bodily contact. Wear self contained breathing apparatus and wear appropriate protective equipment. Keep material from exposure to high heat by using water to cool containers.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled: Loose chemicals and components should be carefully placed into a dry metal container.

SECTION 7 - HANDLING AND STORAGE

Storage Temperature & Pressure: Maintain at normal, ambient, temperature and pressure.

General: Do not store in wet or moist environments.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

Personal Protection: Impervious gloves, air purifying respirator, safety glasses/goggles and protective clothing should be worn if handling chemical core and dust from the chemical core or scrubber.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: A compressed, gray, chemical core enclosed within a metal generator canister. Granular chemicals are within the scrubber.

Vapor Pressure:	not applicable	Vapor Density:	not applicable
Specific Gravity:	varies	Evaporation Rate:	not applicable
Odor:	none	Solubility in Water:	appreciable
pH:	alkaline		

SECTION 10 - STABILITY AND REACTIVITY

Conditions To Avoid: Avoid storing, mixing or contaminating with chemicals, mineral acids, and combustible materials.

Incompatibility:	Oils, organic metals, and acids.
Hazardous Decomposition Products:	Can include chlorine and chlorine dioxide.
Hazardous Polymerization:	Will not occur.
Stability:	Stable

SECTION 11 - TOXICOLOGICAL PROPERTIES

No data available.

SECTION 12 - ECOLOGICAL INFORMATION

No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Generators must be spent prior to disposal. Due to barium within the generator it is considered a hazardous waste even after it is spent. The spent unit must be disposed of in accordance with all Federal, State and local regulations.
The Oxygen device also contains Lithium Hydroxide which is a class 8- Corrosive (UN2680).

SECTION 14 - TRANSPORTATION INFORMATION

DOT Shipping Name:	Oxygen Generator, Chemical
DOT Hazard Class:	5.1
DOT Number:	UN 3356
Packing Group:	II

Notice: Special Shipping restrictions apply. Refer to United States Code of Federal Regulations (CFR 49) or other applicable government regulations. Government approval, exemptions or permits may be required.

SECTION 15 - REGULATORY INFORMATION

This device is a chemical oxygen generator and is classified as an “Article” as defined in 29 CFR 1910.1200 (b) (6) (v) - 1 July 1995. Therefore, this device does not require a Material Safety Data Sheet. However, for Federal procurement, a MSDS is required per Federal Standard No. 313C (GSA Federal Supply Service).

SECTION 16 - OTHER INFORMATION

The information contained herein is, to the best of our knowledge and belief, accurate. However, Scott Aviation assumes no liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. It is the responsibility of the user to comply with all applicable Federal, State, and Local laws and regulations.